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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,117	06/13/2001	Johan Wanselin	003300-794	3882

7590 12/14/2006
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EXAMINER

CHORBAJI, MONZER R

ART UNIT PAPER NUMBER

1744

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,117

Applicant(s)

WANSELIN ET AL.

Examiner

MONZER R. CHORBAJI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

This final action is in response to the amendment received on 09/28/2006

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1 and 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al (U.S.P.N. 3,407,027) in view of Hennebert et al (U.S.P.N. 4,764,351).

Regarding claim 1, Huston discloses a sterilization chamber (figure 1:14) within an autoclave device (figure 1:10) that includes the following: housing (figure 1:12, 15 and 17), pressure means (an autoclave device necessarily uses steam, which is the pressure means), front planar wall surface (unlabeled planar front wall surface of chamber 14 in figure 2) that includes a front opening, rear planar wall surface (unlabeled planar rear wall surface of chamber adjacent to housing 17 in figure 1), chamber body portion disposed between the front and the rear surfaces (unlabeled region of chamber 14 between both surfaces in figure 1), chamber is capable of being releasably fastened within the autoclave device (figure 1:14, 28 and figure 2:14, 27, 23) such that the front (front end of chamber 14 is directly connected to 15 of the housing as shown in figure 2) and the rear wall surfaces (rear end of chamber 14 is directly connected to 17 of the housing as shown in figure 1) are directly connected to the housing of the autoclave device (figure 1:10). Huston teaches that the inner shell (sterilization chamber) is to be manufactured from corrosion resistant material (col.1, lines 48-52), but fails to explicitly teach the type of building material. Yet it is known in the art to form chambers from either stainless steel or plastics. In addition, Huston fails to explicitly recite the presence of steam inlet within the wall of the chamber that is necessary for inputting steam into the chamber and the explicit presence of display means in the autoclave device. Hennebert teaches that various pressures within the chamber can be operated (col.2, lines 47-58 and col.9, lines 47-52) and further

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discloses the following: chamber is constructed of plastic material (col.5, lines 17-27, col.6, lines 53-55 and col.9, lines 10-16), steam inlet within the wall of the chamber (figure 1:1 and 17) and the use of thermostat that necessarily includes displaying temperature readings. As to the added limitation that “the polymeric chamber has natural heat isolating properties so as to reduce the risk of burning to a person touching the housing of the autoclave device”, Hennebert’s chamber is inherently capable of having heat isolating properties so that persons touching it do not burn their hands. See MPEP 2114 where in apparatus claims, structural features limit the scope of such claims not intended usage. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct Huston chamber out of polymeric material as taught by Hennebert since plastic is low in cost and does not conduct electricity (Hennebert, col.5, lines 23-25 and col.6, lines 53-54) and to further add thermostat to Huston device in order to insure that temperature within the chamber is maintained within the intended range (Hennebert, col.7, lines 67-68 and col.8, lines 1-2) so that sterilization is achieved efficiently.

Regarding claims 11-12 and 14-15, Huston teaches the following: a chamber that is capable of being releasably fastened within the autoclave device (figure 1:14, 28 and figure 2:14, 27; 23), chamber is essentially manufactured in one continuous piece (figure 1:14), chamber is sealed by a movable sealing door (figure 2:11) and a sterilization cycle (autoclaving) is to be performed in the sterilization device (figure 1:10).

Regarding claim 13, Huston fails to explicitly recite the presence of steam inlet within the wall of the chamber that is necessary for inputting steam into the chamber. Hennebert teaches an integral steam inlet within the wall of the chamber (figure 1:1, 17 and unlabeled integral opening in chamber for inputting steam). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further add an integral opening into the wall of Huston chamber as taught by Hennebert (figure 1:1, 17) so that steam is directly added into the space of chamber resulting in faster increasing pressure and temperature within the chamber.

5. Claims 2, 5-6 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al (U.S.P.N. 3,407,027) in view of Hennebert et al (U.S.P.N. 4,764,351) as applied to claim 1 and further in view of Spence (U.S.P.N. 4,919,888)

Regarding claims 2 and 5-6, Huston and Hennebert fail to teach the following: chamber is manufactured from an injection-mouldable material, injection-mouldable material essentially is a polyamide material and the chamber is manufactured from a composite material. Spence teaches the following: chamber is manufactured from an injection-mouldable material (col.4, lines 36-37 and line 31), injection-mouldable material essentially is a polyamide material (col.4, lines 36-37 and line 31) and the chamber is manufactured from a composite material (col.4, line 31). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute construction material of Huston chamber with polymeric material as taught by Spence since such materials are not adversely affected by the sterilant or by the sterilization conditions (Spence, col.4, lines 30-33).

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Regarding claim 19, Huston discloses a chamber (figure 1:14) that is capable of being releasably mounted and fastened within the autoclave device (figure 1:14, 28 and figure 2:14, 27, 23).

6. Claims 3-4, 7-9 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al (U.S.P.N. 3,407,027) in view of Hennebert et al (U.S.P.N. 4,764,351) and Spence (U.S.P.N. 4,919,888) as applied to claims 2 and 6 and further in view of Quehl (U.S.P.N. 4,165,404).

Regarding claims 3-4, 7 and 9, Huston, Hennebert and Spence all fail to teach the following: the use of a reinforcement material such as rowing weave, the use of carbon fiber, a concatenating polymer material such as an epoxy material and the use of a glass fiber rowing weave. Quehl teaches the following: the use of a reinforcement material such as rowing weave (col.2, lines 11-14 and line 45) arranged around the injection mouldable material (col.7, lines 24-27 and lines 48-50), and the use of carbon fiber (col.2, line 44) and a concatenating polymer material such as an epoxy material (col.6, lines 10-12), the use of glass fiber (col.2, line 44) and a concatenating polymer material (col.6, lines 10-12). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the constituting material of Huston chamber by including glass or carbon fibers because of their desirable physical properties as evidenced by Quehl (Quehl, col.2, lines 47-48).

Regarding claims 8 and 16-18, Huston, Hennebert and Spence all fail to teach the following: the use of a reinforcement material such as rowing weave, the use of carbon fiber and a concatenating polymer material such as an epoxy material. Quehl

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teaches the following: the use of a reinforcement material such as rowing weave (col.2, lines 11-14 and line 45) arranged around the injection mouldable material (col.7, lines 24-27 and lines 48-50), the use of carbon fiber (col.2, line 44) and a concatenating polymer material such as an epoxy material (col.6, lines 10-12), the use of glass fiber (col.2, line 44) and a concatenating polymer material (col.6, lines 10-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the constituting material of Huston chamber by including glass or carbon fibers because of their desirable physical properties as evidenced by Quehl (Quehl, col.2, lines 47-48).

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al (U.S.P.N. 3,407,027) in view of Hennebert et al (U.S.P.N. 4,764,351), Spence (U.S.P.N. 4,919,888) and Quehl (U.S.P.N. 4,165,404) as applied to claim 9 and further in view of Leimbacher et al (U.S.P.N. 5,837,181).

Huston, Hennebert, Spence and Quehl all fail to teach the use of specific types of concatenating polymers as recited in the claim. However, Limbacher teaches the use of polyvinyl alcohol fibers (col.5, lines 25-26). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Huston chamber by including polyvinyl alcohol since such a fiber is known to have a high modulus as taught by Leimbacher in col.5, lines 25-26.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Huston et al (U.S.P.N. 3,407,027) in view of Hennebert et al (U.S.P.N. 4,764,351) as applied to claim 14 and further in view of Houston et al (U.S.P.N. 5,894,014).

Huston and Hennebert fail to teach a chamber having a pair of integrally formed tracks in which the sealing chamber door may be slidably mounted. Houston teaches that the chamber door is slidably mounted (col.2, lines 61-64) and that the chamber door is provided with a pair of integrally formed tracks (figure 2:44) such that the tracks and the chamber are capable of being removed simultaneously. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute Huston chamber door with a slidably mountable chamber door with a pair of formed tracks as taught by Houston since vertically slidable chamber door makes loading and unloading of items into and out of the autoclave easier and safer than other types of doors.

Response to Arguments

9. Applicant's arguments filed on 09/28/2006 have been fully considered but they are not persuasive.

On page 7 of the Remarks section, Applicant argues that utilizing plastic material within autoclave devices is not known in the prior art. The examiner disagrees.

Applicant is referred to Hennebert where the chamber (figure 1:1), which within the autoclave device (figure 1:3 and col.7, lines 30-33) is constructed from plastic material (col.5, lines 22-24). Hennebert chamber is capable of withstanding various temperatures including at least a temperature of 120° C. Clearly, it is known in the art to form chambers from either stainless steel or plastics as at least evidenced by Hennebert.

On pages 7-8 of the Remarks section, Applicant argues that Hennebert constructing chambers with plastic material is under certain usage conditions and that Hennebert further teaches away from building chambers with plastic material when autoclaving method is needed. The examiner disagrees. Applicant points to column numbers and lines for support, yet such references are either irrelevant or do not teach away from the combination. In col.1, lines 14-23, Hennebert simply shows that there are other sterilization methods for medical devices that cannot withstand high temperature. In col.5, line 22, Hennebert teaches that plastic chambers do not conduct electricity and withstand subatmospheric pressure values. In addition, see col.9, lines 19-22, where a source of steam is connected to Hennebert plastic chamber. See MPEP 2114 where in apparatus claims, structural features limit the scope of such claims not intended usage and that Hennebert plastic chamber is capable of handling various temperatures and pressures. Therefore, Hennebert does not teach against constructing chambers made of plastic for autoclaving.

On page 8 of the Remarks section, Applicant argues that, "Applicants respectfully submit that a thermostat may be pre-set at a pre-set value by the factory manufacturing the autoclave and thus not have an actual display." It is noted that claim 1 only recites, "display means" without excluding any type of a device. The term "Thermostat" does include a display means. For example, houses have thermostat with display means for the users to adjust the temperature to various values. In addition, Hennebert teaches that changes in the temperature are recorded (col.7, lines 67-68 and col.8, lines 1-6) and are programmable where such control means are considered to conventionally

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include display means. This recordation is also considered display means. Therefore, the thermostat taught in Hennebert includes inherent display means.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

11. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R. CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 9:00-5:30.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GLADYS J. CORCORAN can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRC


GLADYS J. CONCORAN
SUPERVISORY PATENT EXAMINER